



Policy File

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The Coalition is tracking the following bills and others related to alternative fuels and vehicles throughout the legislative session.

AB 1813 | Author: Quirk

In brief: Establishes a Fuel Producer Capital Assistance Program providing up to \$100 million to low-carbon liquid transportation fuel producers that locate a large production facility in California.

Status: In Assembly Natural Resources Committee.

AB 1907 | Author: Ridley-Thomas

In brief: Defines the dge for LNG as 6.06 pounds and the gge for CNG as 5.66 pounds, and requires dispensers to pump natural gas fuel only in dges and gges.

Details: Also replaces existing per-cubic-foot or per-gallon taxes with an excise tax of \$0.0887 per gge for CNG and \$0.1017 per dge for LNG. The Coalition is sponsoring this bill.

Status: In Assembly Business, Professions and Consumer Protection Committee.

AB 2202 | Author: Logue

In brief: Requires CARB to exempt "small independent fuel marketers" from AB 32 regulations that mandate monitoring and reporting of GHG emissions.

Status: In Assembly Natural Resources Committee.

AB 2390 | Author: Muratsuchi

In brief: Establishes a Green Credit Reserve to encourage development of renewable and low-carbon transportation fuels.

Details: The Reserve would buy

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Technology

SoCalGas Pursues Emissions Grail

Anticipating stricter standards, SoCalGas, SCAQMD and CEC fund low-NOx engine development now

The need for drastically lower NOx emissions in 2023 is driving Southern California Gas Co. and California regulatory agencies to invest significantly in a range of new, cleaner natural gas engines.

By 2023, the South Coast AQMD must reduce NOx emissions in its territory from the current level of 600 tons per day to just 150 tons per day in order to reduce atmospheric ozone and airborne PM, said Cherif Youssef, technology development manager at SoCalGas. Current measures aren't up to the task.

"With all the current reduction measures in place, they'd only get to 300 tons a day by 2023," said Youssef. "To get to the required 150 tons a day, they have to find many other ways to reduce emissions. Since 80 percent of emissions are due to transportation—locomotives, buses, cars, trucks, aircraft—the focus has been on reducing emissions from all types of mobile sources. Heavy-duty trucks are a primary target because their NOx and CO₂ emissions are higher than those of other vehicles."

Heavy-duty trucks meeting current California standards emit less than 0.2 grams per brake horsepower-hour (g/bhp-hr) of NOx, but SCAQMD analyses indicate that a much lower level, 0.02 g/bhp-hr, may be required to help the region reach the 2023 NOx mandate.

"The reduction to 0.02 is a guideline, not a standard, but the SCAQMD, the CEC and SoCalGas decided to pool their resources to fund new engine development to achieve this target," said Youssef.

Engines under development SoCalGas, the CEC, and SCAQMD issued a \$7 million solicitation to develop new, highly efficient natural gas engines. They received seven proposals and approved two: a Cummins Westport 8.9-liter engine and a Cummins 15-liter engine. Cummins Westport will modify its current 8.9-liter engine to run 90 percent cleaner; Cummins is developing the 15-liter engine, which could be ready in about three to four years.

SoCalGas has contributed to the development of other engines as well. For instance, an alliance of South Korea's Doosan and San Antonio, Texas-based Southwest Research Institute is developing an 11-liter engine that will meet the projected California emissions requirements,

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project developers' state and federal credits as a way of stabilizing the credits market.

Status: Set for hearing in Assembly Natural Resources Committee April 7.

AB 2620 | Authors: Rendon, Levine

In brief: Mandates a sustainability program for state agencies' procurement of shipping and transportation services.

Status: In Assembly Accountability and Administrative Review Committee.

SB 1156 | Author: Steinberg

In brief: Imposes a tax on fossil fuels per ton of CO₂-equivalent emissions, but exempts fuel suppliers from having to obtain allowances under California's cap-and-trade regime.

Status: In Senate Government and Finance Committee.

SB 1204 | Authors: Lara, Pavley

In brief: Funds development of zero- and near-zero-emission truck, bus, and off-road technology via cap-and-trade revenues from the existing Greenhouse Gas Reduction Fund.

Status: In Senate Environmental Quality Committee; set for hearing April 30.

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while Cummins Westport is developing a 6.7-liter engine that will fill a gap in the natural gas lineup at the current emissions standard.

"With the new 6.7-liter engine, you'll have a family of natural gas engines—6.7-, 8.9-, 11- or 12-, and 15-liter engines—that covers from Class 3 to Class 8 trucks and buses," said Youssef.

SoCalGas is also funding development of a 15 kWh microturbine by Brayton Energy that would generate electricity for a vehicle's drivetrain without powering the vehicle directly. The advantage of microturbines—which are essentially very small jet engines—is a level of efficiency so high that the turbine's emissions would approach zero, eliminating the need for catalytic treatment, said Youssef. "The technology [it uses] is called cool exhaust recirculation, and they've been achieving great results with it. It will produce ultralow emissions without the need for an expensive catalyst." ▸

News Briefs

SF Firm Wins Grant for Advanced Storage Tanks The federal ARPA-E agency awarded \$5.475 million to San Francisco firm BlackPak as part of a cooperative agreement to develop high-capacity, low-pressure natural gas storage tanks for vehicles. These adsorbed tanks would take advantage of nanoporous materials to greatly increase storage capacity without the need for higher pressure, and would allow form factors that could accommodate a wider variety of vehicle space requirements. The target capacity for the tanks is 6 megajoules per liter at 500 psi.

U.S. Moves to Reduce Methane Emissions President Barack Obama has initiated a federal Strategy to Reduce Methane Emissions that addresses leakage of the greenhouse gas from landfills, coal mining, agriculture, and oil and gas production systems through a combination of voluntary measures and "commonsense" standards. The strategy calls for updated standards to reduce methane from new landfills and public comment on standards for existing landfills. It also directs the EPA to "assess several potentially significant sources of methane and other emissions from the oil and gas sector" and determine how to get further reductions from these sources. Finally, the Quadrennial Energy Review and DOE roundtables will identify as-yet-unspecified methane-reduction opportunities that are "downstream" from oil and gas production.

DGE/GGE Measures Advance at State, Federal Levels Iowa's governor has signed a law mandating dge and gge as measures for natural gas used in transportation and adjusting state excise-tax schedules accordingly as of July 1, 2014. This news follows the adoption of dge and gge standards in New Mexico and Wyoming and a decision to tax natural gas by energy content rather than weight in South Dakota. A dozen other states have similar bills pending. At the federal level, a special steering committee of the National Conference on Weights and Measures recommended that CNG and LNG be sold in gge and dge units; the organization will vote on that recommendation at its July 13–17 annual meeting.

Peterbilt Adds CNG Versions of Newest Trucks Peterbilt is adding CNG configurations for its two newest vehicles, the on-highway Model 579 and the vocational (short- or medium-haul) Model 567. Both trucks will run on the Cummins Westport ISX12 G engine. Peterbilt will begin production of the two vehicles later in 2014.

Chart LNG Debuts Higher-Capacity Tank Chart LNG has introduced a bonus-capacity LNG tank with 6 percent more internal capacity than existing tanks, effectively extending mileage for truck drivers. The 26-inch tanks will be available for model year 2015 vehicles.

IMPCO Wins 2015 Certifications IMPCO Automotive has received CARB and EPA certification for its bifuel systems on the model year 2015 Chevrolet Silverado 2500HD and GMC Sierra 2500HD pickups. The company has begun OEM conversions of these vehicles at its Union City, Indiana, plant and anticipates GM's ship-to-commerce approval for finished vehicles in the near future.